

DATA AND TRENDS ON TOBACCO USE IN NEBRASKA



for a great state of health



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Data and Trends on Tobacco Use in Nebraska

Introduction

Tobacco use is the leading cause of preventable death in the United States, responsible for over 400,000 deaths annually¹. In Nebraska each year, nearly 2,400 adults die prematurely because of cigarette smoking and it is estimated that 36,000 Nebraskans now under the age of 18 will eventually die prematurely from cigarette smoking². Smoking related medical costs total \$537 million annually in Nebraska (including \$134 million of Nebraska's annual Medicaid expenditures).³ Smoking-related mortality also results in over \$499 million in lost productivity each year in the state.⁴ While data is not available for the specific health and economic impacts of smokeless tobacco use in Nebraska, the use of smokeless tobacco is related to higher risks of oral cancers, ulcers and heart disease.⁵

This report summarizes data on the use, attitudes and consequences of tobacco use in Nebraska. When available, trend data over a five-year - or longer - period is provided to illustrate changes in tobacco-related data. The report begins by presenting the tobacco-related health objectives that Nebraska hopes to reach by the year 2010. Prevalence rates for Nebraska adults and youth are provided regarding cigarette smoking and smokeless tobacco use. The report also provides information on the illegal sale of tobacco products to minors, the health and financial costs associated with tobacco use in Nebraska, exposure to and attitudes regarding secondhand smoke and a number of other

¹ CDC, 2008

² Campaign for Tobacco Free Kids, 2008

³ CDC, 2006

⁴ CDC, SAMMEC

⁵ National Cancer Institute

issues related to tobacco use. The final section provides an overview of the various data sets that were used to create the report.

Healthy People 2010

Healthy People 2010 is a nation-wide health promotion and disease prevention initiative that is committed to improving the health of all people in the United States during the first decade of the 21st century. It builds on Healthy People 2000 and a previous set of national health objectives from 1990.⁶ Nebraska 2010 Health Goals and Objectives share the national goals of eliminating health inequalities and increasing quality and years of healthy life for all people in Nebraska. Three Healthy People 2010 objectives are related to tobacco use among adults:

Objective 27-1a - to reduce the prevalence of cigarette smoking to no more than 12 percent (Nebraska and U.S.) with objectives by race and ethnicity.

Objective 27-1b - to reduce the prevalence of smokeless tobacco use among men to no more than 0.4 percent in the U.S. and no more than 4 percent in Nebraska.

Objective 27-1c - to reduce the prevalence of cigar smoking to no more than 1.2 percent in the U.S. and no more than 2 percent in Nebraska

Tobacco Free Nebraska (TFN)'s goals fall within the national and state Healthy People 2010 goals and objectives. TFN's primary goals are:

- (1) Preventing the initiation of tobacco use among young people;
- (2) Eliminating exposure to secondhand smoke;
- (3) Helping people quit the use of tobacco; and
- (4) Reaching underserved populations.

⁶ U.S. Dept of Health and Human Services, 2000

Summary Statistics for Nebraska

Adult tobacco use

- Adult cigarette smoking prevalence 19.9% (*BRFSS 2007*)

Adult cigarette smokers are defined as those having smoked at least 100 cigarettes in their lifetime and who currently smoke everyday or some days.

- Adult male smokeless tobacco use prevalence 8.5% (*ATS/SCS 2007*)

Youth tobacco use

- Youth cigarette smoking prevalence 22.3% (*YRBS 2007*)

Adolescent cigarette smokers are defined as having smoked cigarettes on one or more of the past 30 days.

- Ever tried smoking cigarettes, even one or two puffs 52.5% (*YRBS 2007*)
- Smokeless tobacco use prevalence 11.5% (*YRBS 2007*)

Exposure to secondhand smoke

- Homes with smoke-free policy 82.8% (*ATS/SCS 2007*)
- Smoke-free family vehicles 78.1% (*ATS/SCS 2007*)
- Employees protected by indoor smoke-free policy 82.3% (*ATS/SCS 2007*)
- Employees protected by smoke-free work area policy 72.1% (*ATS/SCS 2007*)

Mortality and diseases associated with tobacco 2006*

- Smoking-related deaths AAR⁺ 220.6 / 100,000
- Smoking-related cancer deaths AAR 96.0 / 100,000
- Smoking-related stroke AAR 8.1 / 100,000
- Smoking-related cardiovascular diseases AAR 55.9/ 100,000
- Smoking-related respiratory disease AAR 68.7/ 100,000

**Smoking-related mortality rates for Nebraskans age 35 years and above*

⁺ AAR – Age adjusted rates

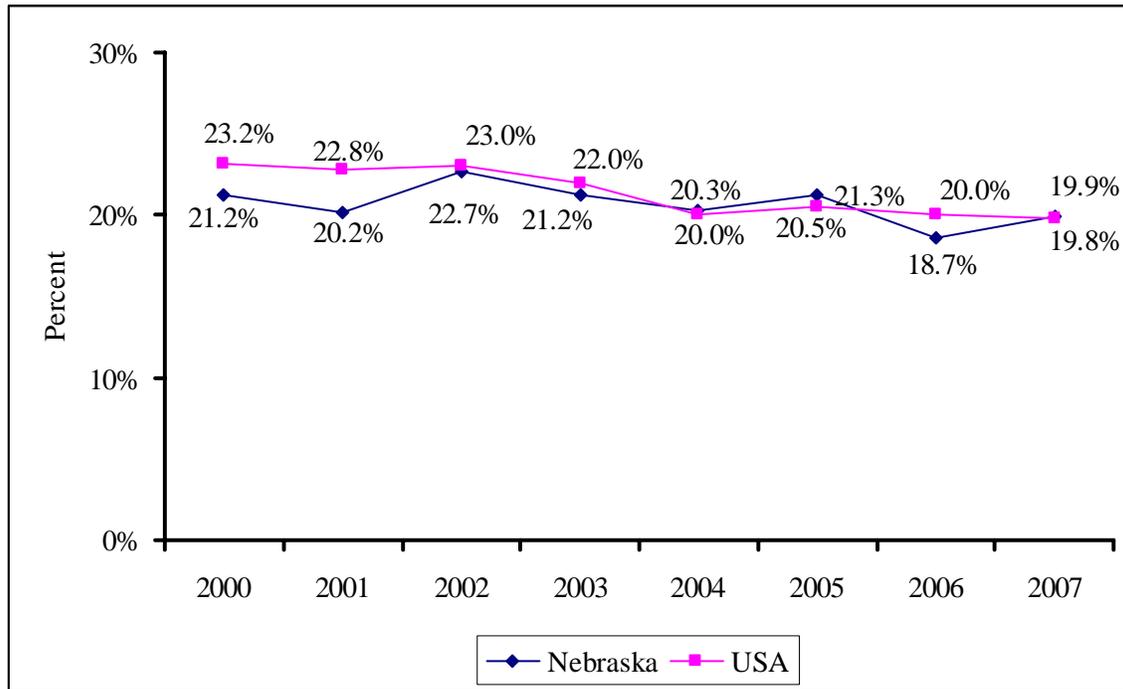
Sources: Adult Tobacco Survey/Social Climate Survey (ATS/SCS); Behavioral Risk Factor Surveillance System (BRFSS); Youth Risk Behavior Survey (YRBS); Nebraska Department of Health and Human Services (DHHS), Vital Statistics.

Adult Tobacco Use in Nebraska

Adult Smoking

Since 2000, Nebraska's adult smoking rate has occasionally shifted but generally remained the same with an average rate of 20.7 percent. The national average is 21.4 percent. The smoking rate in Nebraska increased from 20.2 percent in 2001 to 22.7 percent in 2002, but declined to 21.2 percent in 2003 and further to 20.3 percent in 2004. In 2005, the smoking rate went slightly up to 21.3 percent but declined sharply to 18.7 percent in 2006. Although the smoking rate remained relatively stable in 2007, it was up slightly to 19.9 percent.

**Figure 1. Percent of Current Smokers 18 Years and Older in Nebraska and USA
2000 - 2007**

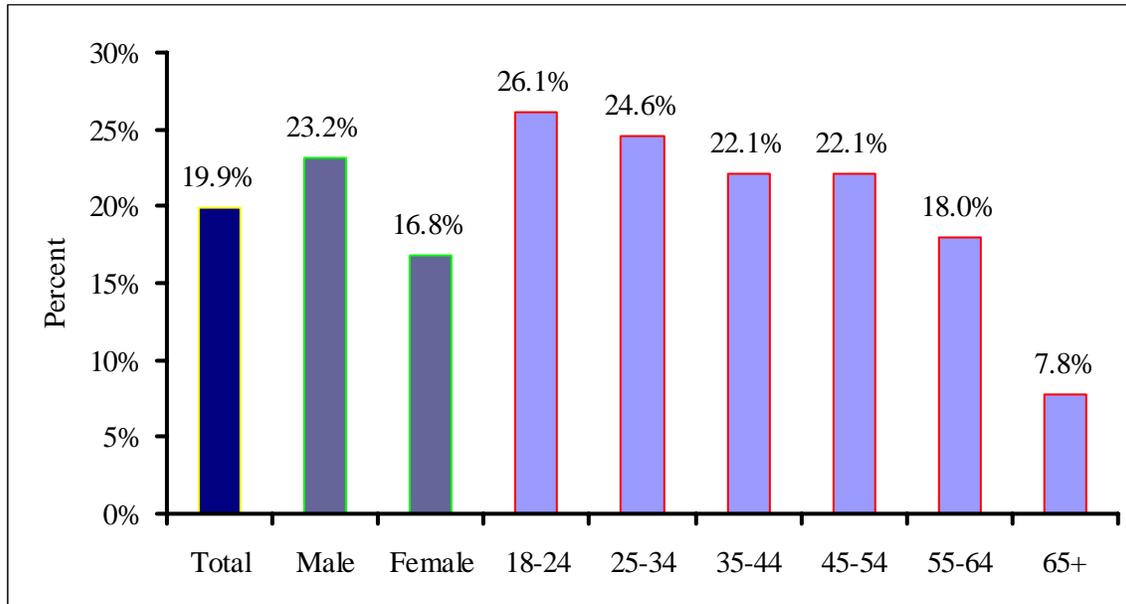


Source: Nebraska Behavioral Risk Factor Surveillance System (BRFSS)

Gender/Age Differences

Data from the 2007 Nebraska Behavioral Risk Factor Surveillance System (BRFSS) suggests that Nebraska males (23.2%) are more likely to smoke than females (16.8%). Younger adults (ages 18-24) exhibit the highest smoking rates (26.1%) with the lowest being among the 65+ age group (7.8%). The sharp decline in the smoking rate after age 65 may be due to increased mortality attributable to smoking-related diseases.

**Figure 2. Percent of Current Smokers in Nebraska
Age 18 and Older by Gender and Age
– 2007**

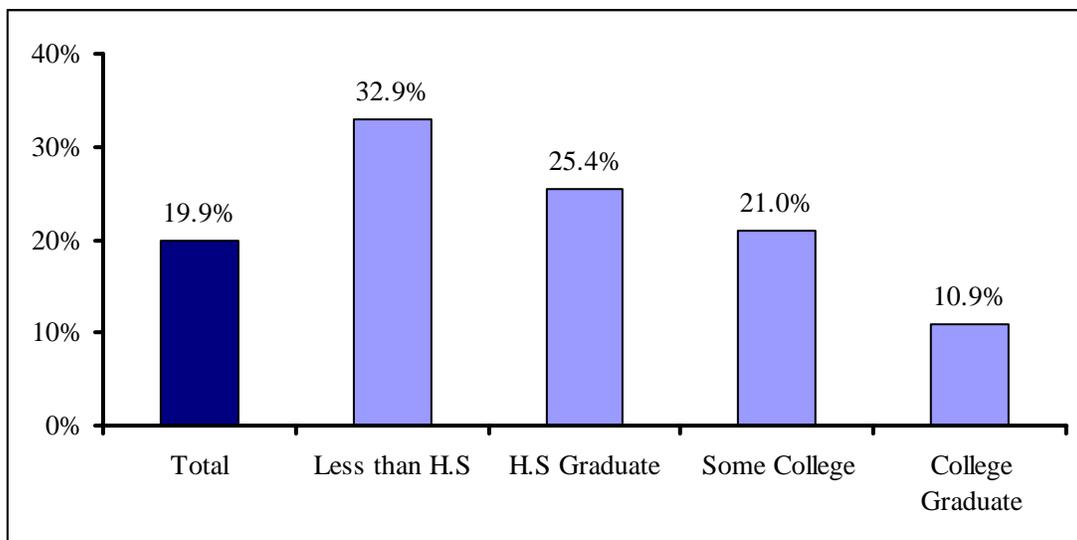


Source: Nebraska BRFSS

Education Differences

Data from the 2007 Nebraska BRFSS suggests that lower levels of education are generally related to higher rates of smoking. Nebraskans with less than high school education (32.9%) or with high school education (25.4%) were more likely to smoke than college graduates (10.9%) (Figure 3).

**Figure 3. Percent of Current Smokers in Nebraska Age 18 and Older
By Education – 2007**



Source: Nebraska BRFSS

Smoking Before, During and After Pregnancy

The 2006 Surgeon General's Report⁷, *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, concluded that there is no risk-free level of exposure to secondhand smoke and that, on average; children are exposed to more secondhand smoke than adults. Infants and young children are significantly more affected by secondhand smoke because their bodies are still developing. Secondhand smoke is also a known cause of sudden Infant Death Syndrome (SIDS), asthma, bronchitis, pneumonia, middle ear infections and other diseases.

Even though it has been established that secondhand smoke has serious health consequences for children, data from the Nebraska Pregnancy Risk Assessment Monitoring System (PRAMS) shows that infants are still exposed to secondhand smoke. Nebraska PRAMS (Table 1) shows that more than a quarter of Nebraska women smoked before they became pregnant. Although the smoking rate drops to about one-seventh during pregnancy, after pregnancy the smoking rate climbs back up to nearly one-fifth.

Table 1. Percentage of Pregnant Women who Smoked Before, During and After Pregnancy 2004 – 2006

Birth Year	Smoked Before Pregnancy	Smoked During Pregnancy	Smoked After Pregnancy
2004	26.10%	16.01%	20.82%
2005	25.78%	15.17%	20.05%
2006	26.21%	14.92%	19.22%

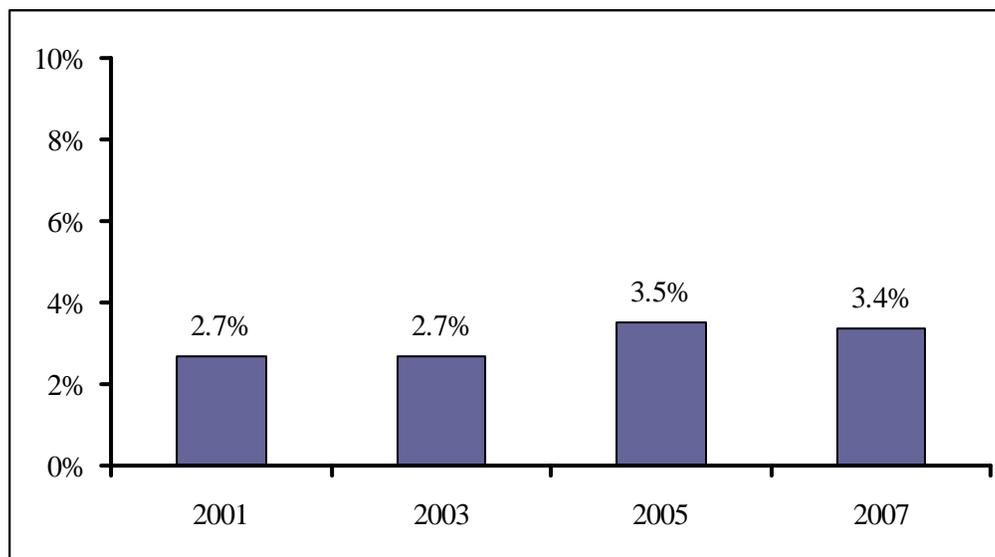
Source: Nebraska Pregnancy Risk Assessment Monitoring System

⁷ U.S. Department of Health and Human Services (2006)

Adult Smokeless Tobacco Use

The trend from Adult Tobacco Survey/Social Climate Survey (ATS/SCS) data shows that adult smokeless tobacco use in Nebraska has remained relatively low. The average smokeless tobacco use rate between 2001 and 2007 is 3.1 percent for all adult Nebraskans.

**Figure 4. Percent of Current Smokeless Tobacco Users
18 Years and Older in Nebraska
2001 - 2007**



Source: Nebraska Adult Tobacco Survey/Social Climate Survey (ATS/SCS)

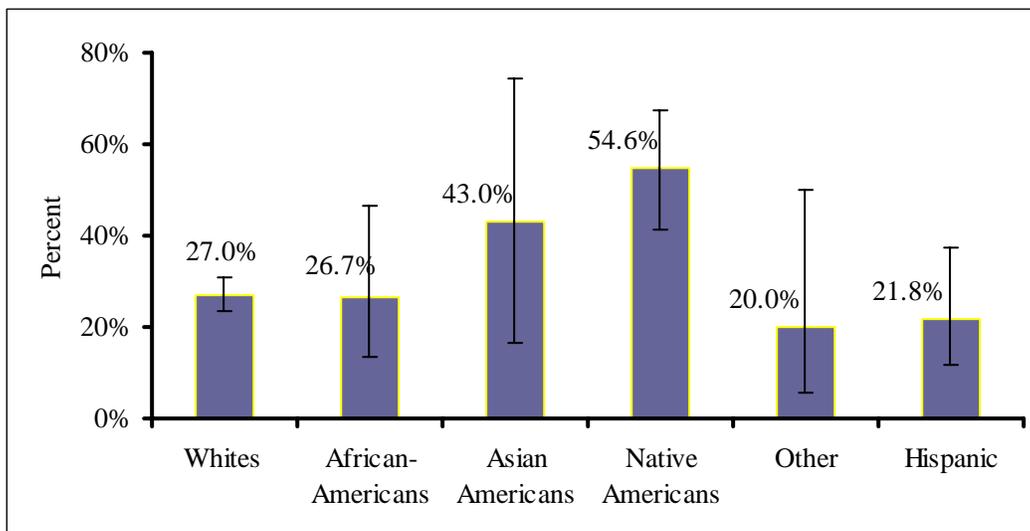
Disparities in Smoking Behavior

Reducing tobacco use in populations that are negatively impacted by tobacco is one of the four main goals of the Tobacco Free Nebraska program. This requires Tobacco Free Nebraska Program to identify and work towards eliminating tobacco-related health disparities. Populations that are negatively impacted by tobacco tend to have higher smoking rates and higher exposure to secondhand smoke (U.S. DHHS, 1989). At the same time these groups often have less access to healthcare and other resources. The results are reflected in disproportionate occurrence of tobacco-related death and disease.

Smoking Prevalence among Racial/Ethnic Groups

Tobacco-related health disparities are influenced by many factors, including socio-economic status, geographic location, race and ethnicity, gender, sexual orientation or disability. The Nebraska combined 2007 BRFSS and Minority oversample BRFSS data shows that smoking rates among Native Americans remains significantly high as compared to other racial and ethnic groups (see figure 5).

**Figure 5. Smoking Prevalence among Racial/Ethnic Groups
2007**

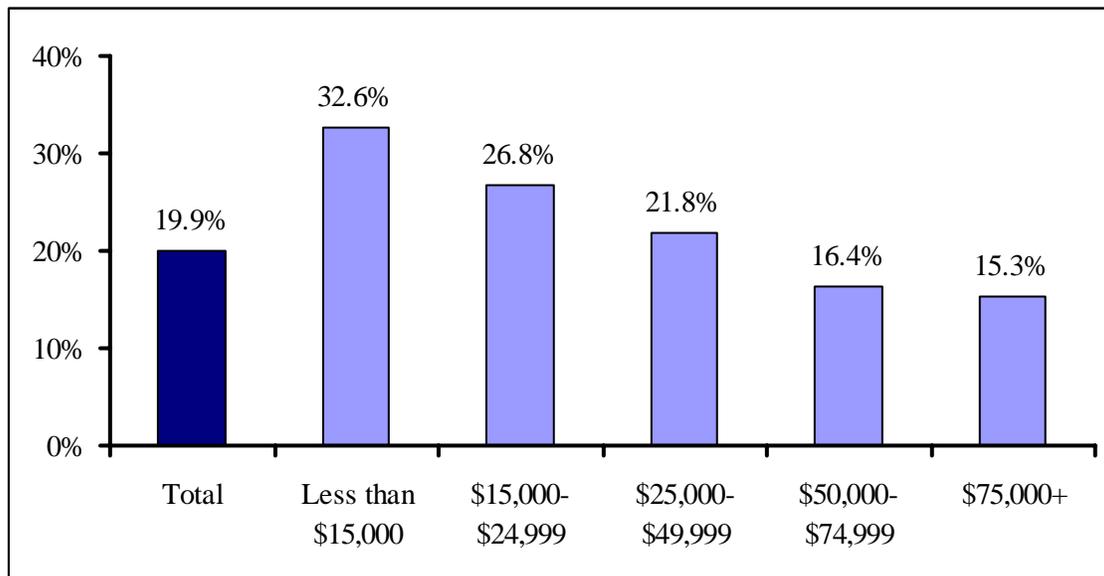


Source: Combined Nebraska BRFSS & Minority BRFSS Oversample
(Error bar reflects confidence intervals)

Adult Smoking Rates by Income

Data from the 2007 Nebraska BRFSS suggests that lower income levels are generally related to higher rates of smoking. Nebraskans with an income of less than \$35,000 were more likely to have a higher smoking rate than the state average adult smoking rate (19.9%) (Figure 6). In fact Nebraskans with less than \$15,000 (32.6%) had the highest smoking rates among the income groups in 2007 (Figure 6).

**Figure 6. Nebraska Adult Smoking Rates
By Income 2007**



Source: Nebraska BRFSS

Key Findings

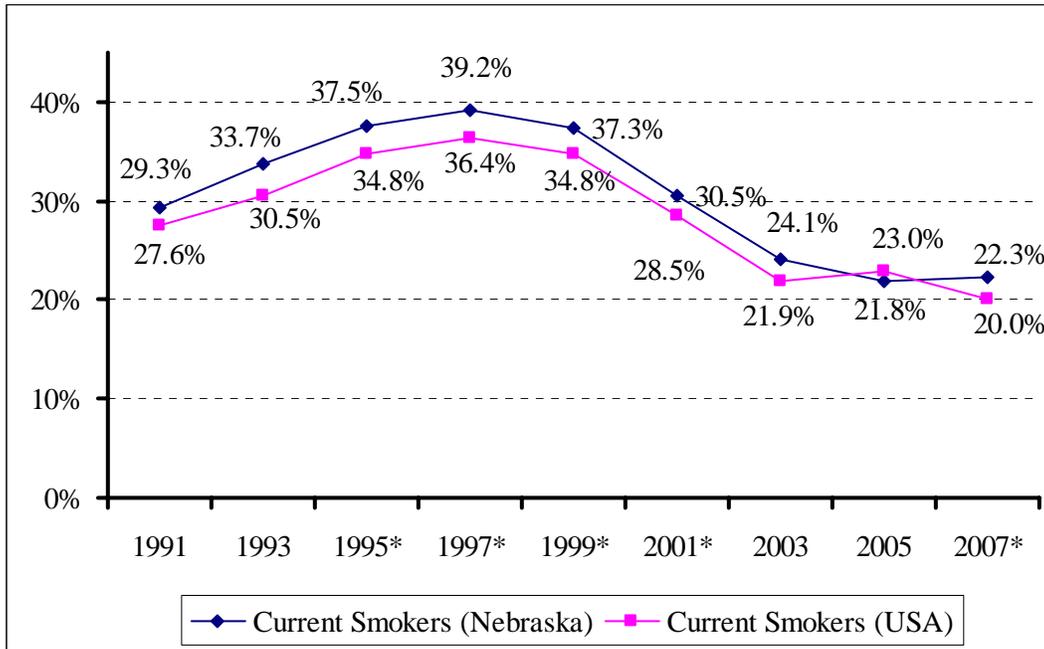
- Native Americans were more likely to be smokers than other racial-ethnic groups
- Nebraskans with lower socio-economic status are more likely to be smokers than those with higher socio-economic status

Youth Tobacco Use in Nebraska

Youth Smoking

Adolescent smoking rates experienced a sharp decline between 1997 (39.2%) and 2005 (21.8%). In 2003, the youth smoking rate dropped to 21.9 percent and remained stable in 2005 (21.8%) indicating a slackening in the declining trend. In 2007, the decline stopped and the trend moved slightly upward to 22.3 percent.

Figure 7. Percent of Graders 9-12 Nebraska Youth (Grades 9-12) Who Smoked on One or More of the Past 30 Days 1991 – 2007



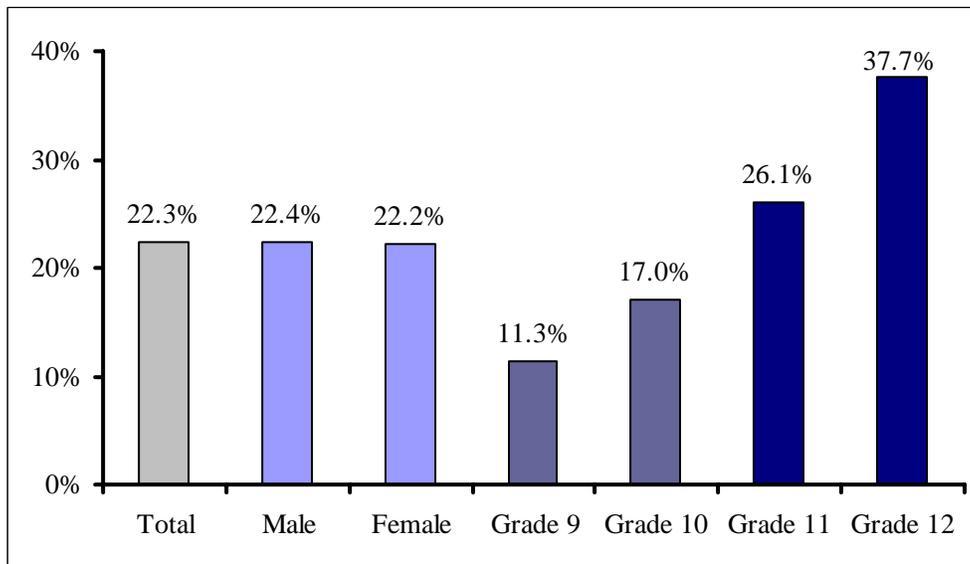
Sources: Nebraska Youth Risk Behavior Survey (YRBS); CDC Youth Behavior Surveillance System

*Nebraska data was not weighted due to low response rates

Youth Smoking by Gender and Grade

Data indicate that smoking rates between male and females are almost equal. However, youth smoking rates increase by grade from 11.3 percent of all 9th graders to 37.7 percent of all 12th graders reporting that they smoked in the past 30 days.

Figure 8. Percent of Nebraska Youth (Grades 9-12) Who Smoked On One or More of the Past 30 Days by Gender and Grade – 2007*



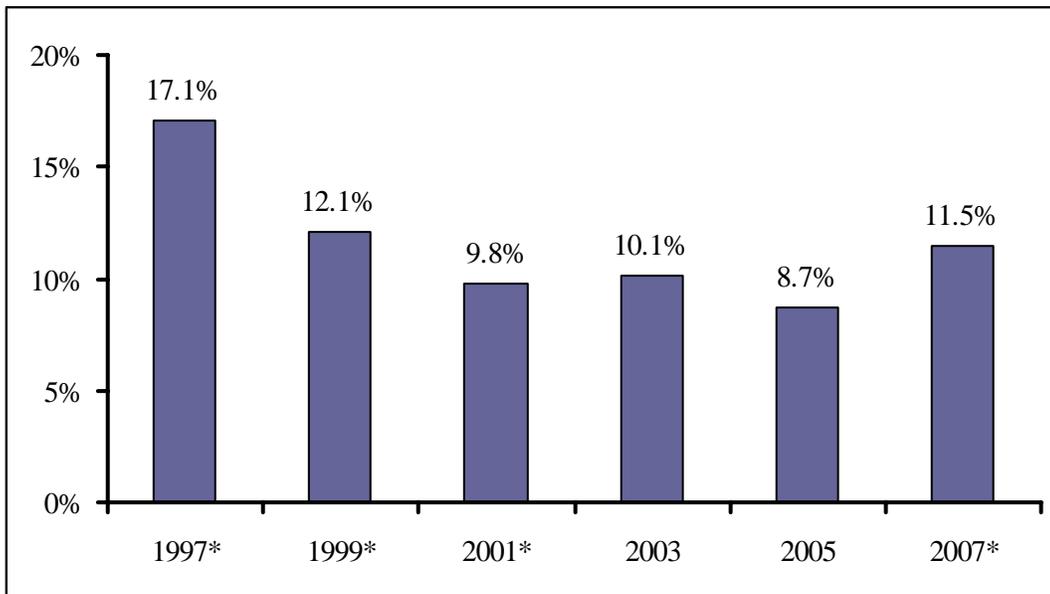
Sources: Nebraska YRBS

*Nebraska data was not weighted due to low response rates

Youth Smokeless Tobacco Use

Similar to youth smoking behavior, the use of smokeless tobacco (chewing tobacco, snuff or dip) by youth experienced a sharp decline between 1997 (17.1%) and 2005 (8.7%). However, in 2007, smokeless tobacco use among youth increased to 11.5 percent.

Figure 9. Percent of Nebraska Youth (Grades 9-12) Who Used Smokeless Tobacco on One or More of the Past 30 Days 1997 – 2007



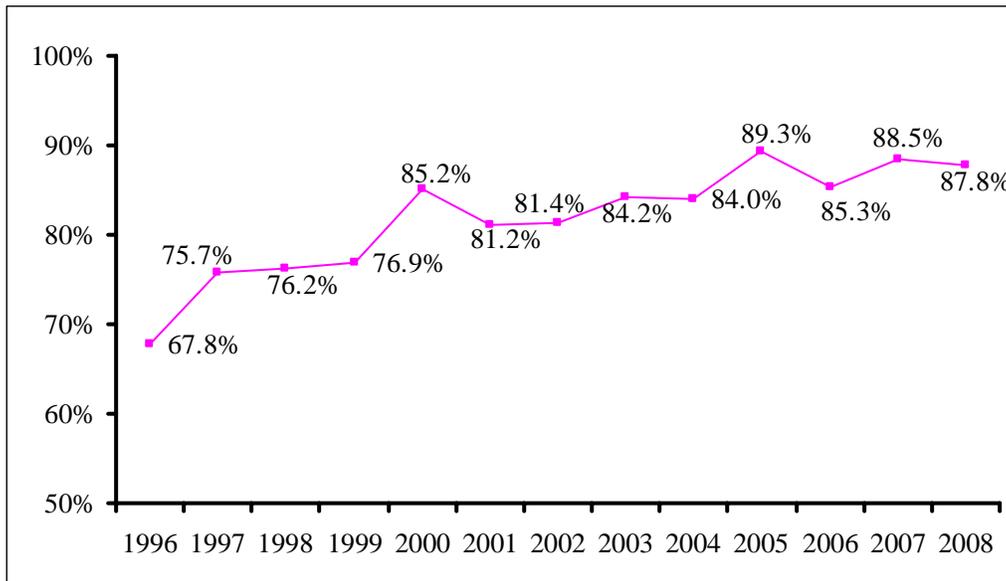
Source: Nebraska YRBS

*Data was not weighted due to a low response rate

Sale of Tobacco Products to Minors

The Nebraska State Patrol conducts random unannounced compliance checks of tobacco retailers to determine the State's compliance rate as required by the federal Substance Abuse and Treatment Block grant. Compliance among tobacco retailers has substantially increased since 1996 and has remained high. In 1996, about three in ten tobacco retailers (32.2%) did not comply with the law that restricts the sale of tobacco products to minors. Although there was a decline from 2005 (89.8%) to 2006 (85.5%), the trend remains almost consistent from 2000 to 2008.

Figure 10. Statewide Compliance Rate for Sales of Tobacco Products to Underage Youth 1996 – 2008



Source: Nebraska Annual SYNAR Report

Smoker and Non-Smoker Attitudes Toward Youth and Tobacco

Nebraska's 2007 Adult Tobacco Survey and Social Climate Survey (ATS/SCS) included a number of questions about adult smoker and non-smoker perceptions regarding youth tobacco use.

Table 2. Smoker and Non-Smoker Attitudes Towards Youth and Tobacco

Adult perception of youth and tobacco use	Total	Smoker	Non-smoker
Agree or strongly agree that:			
• It is very important to keep stores from selling tobacco to minors	97.9%	96.3%	98.3%
• Laws banning the sale of tobacco to minors are adequately enforced	50.2%	62.1%	47.4%
• Tobacco use by teenagers is perceived as a serious problem in my community	56.6%	49.6%	70.2%
• Parents should not allow children under 18 to smoke	94.8%	94.5%	94.9%
• Children are more likely to smoke if their parents smoke	86.9%	76.0%	89.4%
• It is important to keep cigarettes out of the reach of children	97.5%	94.1%	98.2%
Parents who talked to their children about tobacco:			
• Parents who ever talked to their child about tobacco	68.0%	71.3%	67.2%
• In the last 6 months, parents who told their child not to use tobacco	60.9%	64.5%	60.0%

Source: Nebraska ATS/SCS

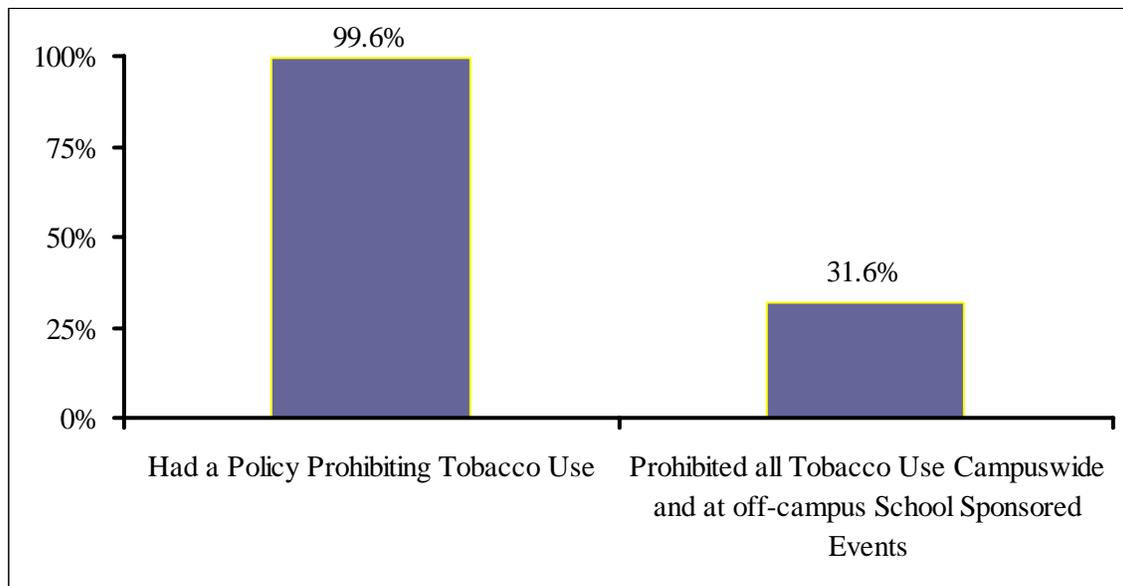
Tobacco Policies in Nebraska Schools

Prohibition of Tobacco Use: School Buildings and School Grounds

The Nebraska School Administrator Survey (SAS) provides information about school tobacco control policies for students, staff and visitors within the school environment. In the 2006 SAS, 236 out of 288 principals of public middle and high schools completed the survey for a response rate of 82 percent.

The survey showed that all public schools have adopted a policy that regulates either partially or fully the use of tobacco by students, faculty and staff in school buildings, on school grounds, in school vehicles and at off-campus school-sponsored events. Almost all the schools (99.6%) have policies that prohibited tobacco. However, only a third of the schools had a policy that prohibited use of all tobacco in all locations (i.e. campus-wide as well as at off-campus school sponsored events).

Figure 11. Percent of Schools with Policies that Prohibit Smoking in School Buildings and on School Grounds – 2006

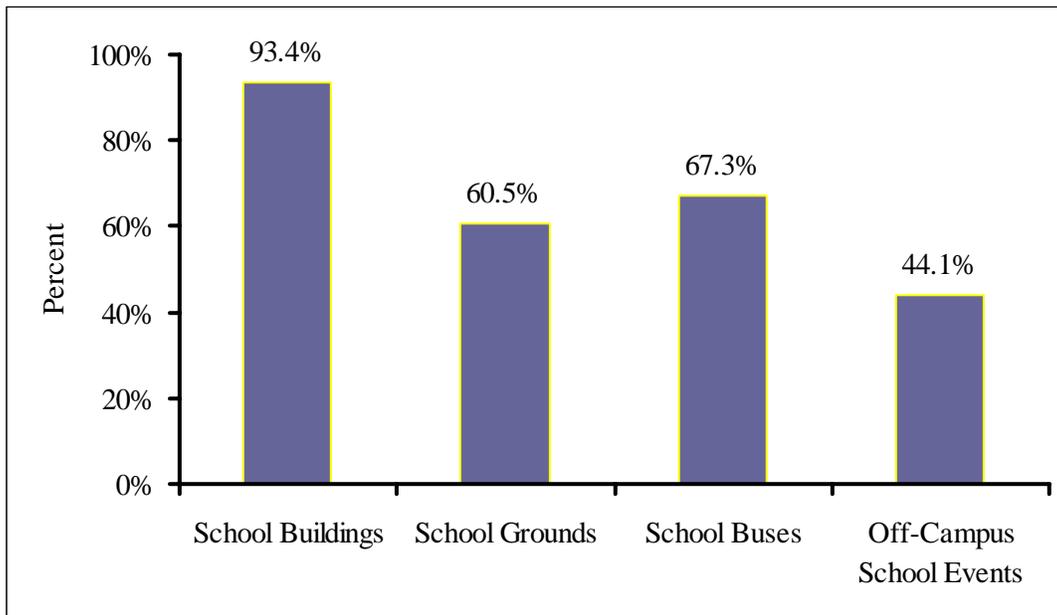


Source: Nebraska School Administrator Survey

Prohibition of Tobacco Use: School Buildings, Buses, Grounds and at Off-Campus School Events

An inclusive tobacco-use prevention policy ties into the Healthy People 2010 Objective 27-11 which is to “increase smoke-free and tobacco-free environments in schools, including all school facilities, property, vehicles, and school events.” Tobacco control policies vary among schools where tobacco use is prohibited. Almost all schools prohibit tobacco use in school buildings (93.4%) and about two-thirds of schools prohibit use of tobacco on school buses (60.5%) and school grounds (67.3%). However, slightly less than half of the school policies (44.1%) prohibit tobacco use at off-campus school events.

Figure 12. Percent of Nebraska Schools with Policies that Prohibit Smoking on School Buses and at Off-Campus School Events – 2006



Source: Nebraska School Administrator Survey

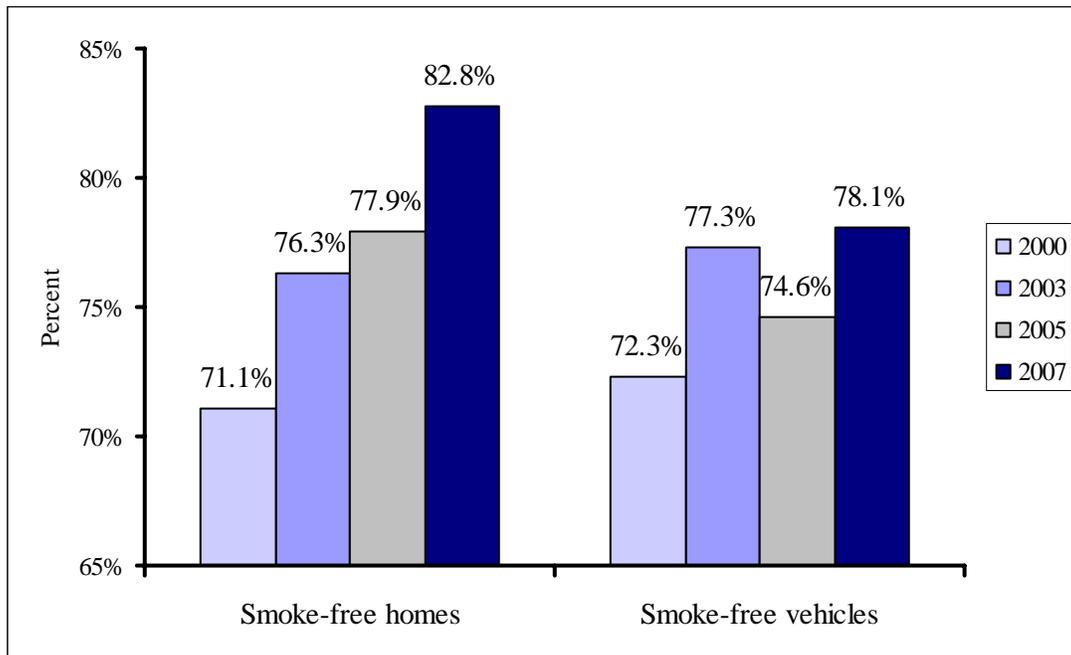
Secondhand Smoke

Exposure to Secondhand Smoke in Homes and Vehicles

The Social Climate Survey (2000) and Adult Tobacco Survey/Social Climate Survey (2003, 2005 and 2007) asked Nebraskans about smoking in their homes, family vehicles and at their place of work. In 2000, 71.1 percent of Nebraskans reported that smoking was not allowed in any part of the home. The percentage increased to 82.8 percent in 2007.

The percentages of Nebraskans that do not allow smoking in the family vehicle increased from 72.3 percent in 2000 to 78.1 percent in 2007.

Figure 13. Nebraskans Protected by Non-Smoking Rules/Policies in Homes and Family Vehicles 2000 – 2007



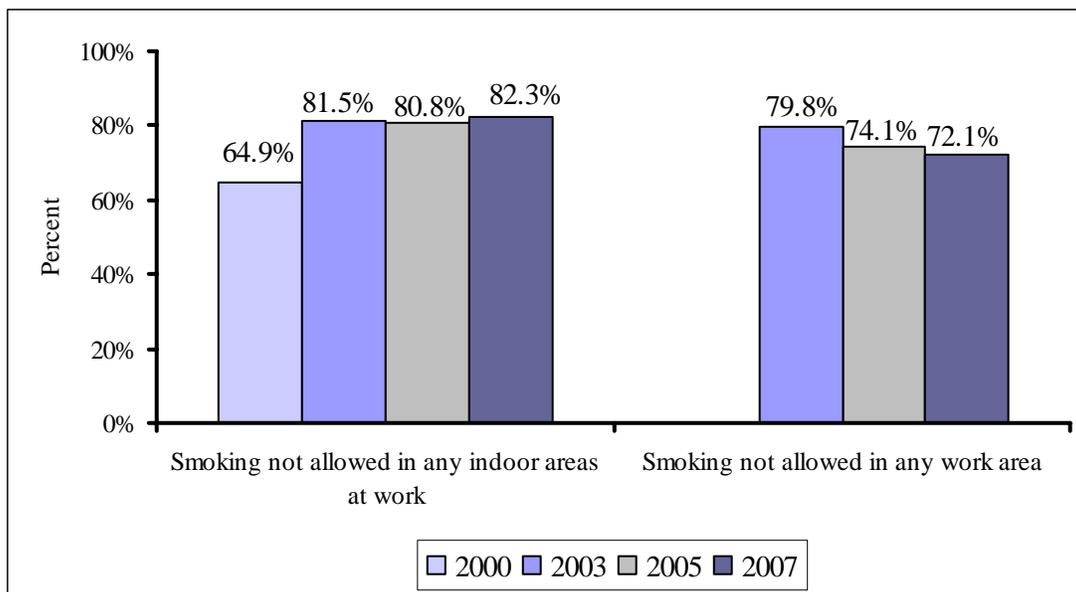
Source: Nebraska Social Climate Survey, Nebraska ATS/SCS

Exposure to Secondhand Smoke at Work

In 2000, 2003, 2005 and 2007, employed Nebraskans were asked about their workplace's policy regarding smoking in indoor areas. Nebraska experienced an increase in the proportion of employees reporting that smoking was not allowed in any indoor area at their place of work from 64.9 percent in 2000 to 81.5 percent in 2003. In 2005, the proportion of Nebraska employees (80.8%) protected by indoor smoke-free policies remained almost the same as in 2003, but increased to 82.3 percent in 2007.

In addition, 2003, 2005 and 2007 ATS/SCS surveys included questions regarding smoking in work areas (which might include work areas that are out-door). Since 2003, the percentage of Nebraskans that reported that smoking was not allowed in any work area remained high but a slight decline took place from 2005 (74.1%) to 2007 (72.1%).

**Figure 14. Nebraskans Protected by Non-Smoking Rules/Policies at Work
2000 – 2007**



Source: Nebraska Social Climate Survey (SCS), Nebraska ATS/SCS

Disparities in Protection against Secondhand Smoke

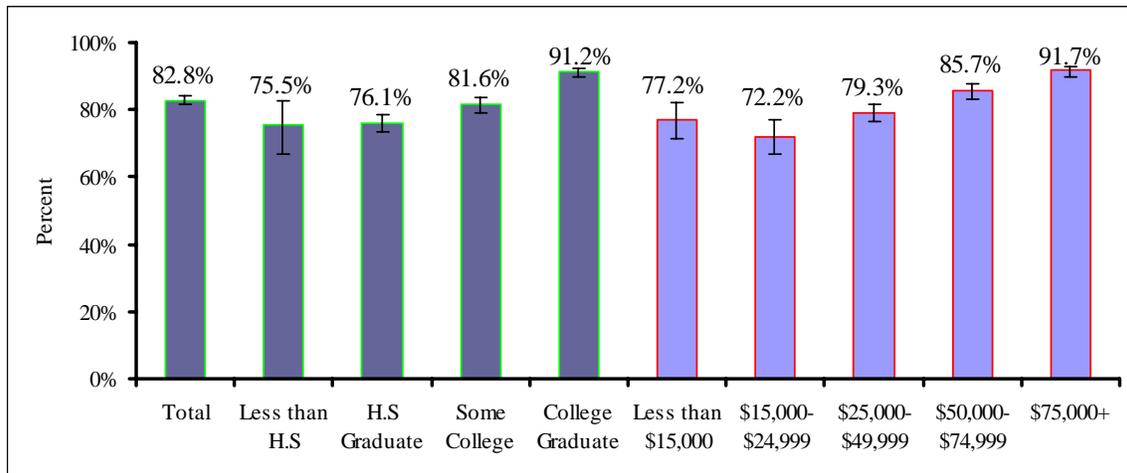
Apart from high smoking prevalence rates among Nebraskans with lower education levels, lower income, and/or unemployed, exposure to secondhand smoke is still prevalent among disparate populations.

Disparities in Smoke-free Rules in Homes – Education and Income

Nebraskans with lower education, lower income and /or the unemployed were less likely to adopt smoke-free policies in their homes and vehicles. Nebraskans with less than high school education (75.5%) or with high school education (76.1%) were less likely to have smoke-free homes as compared to Nebraskans with some college (81.6%) or college degree (91.2%) (See figure 15).

Nebraskans with income of less than \$15,000 (77.2%), \$15,000 – 24,999 (72.2%) and \$25,000 – 49,000 (79.3%) were less likely to have smoke-free homes as compared to Nebraskans with incomes of \$50,000 – 74,999 (85.7%) or over \$75,000 (91.7%) (See figure 15).

**Figure 15. Smoke-free Rules in Homes by Education and Income Levels
2007**

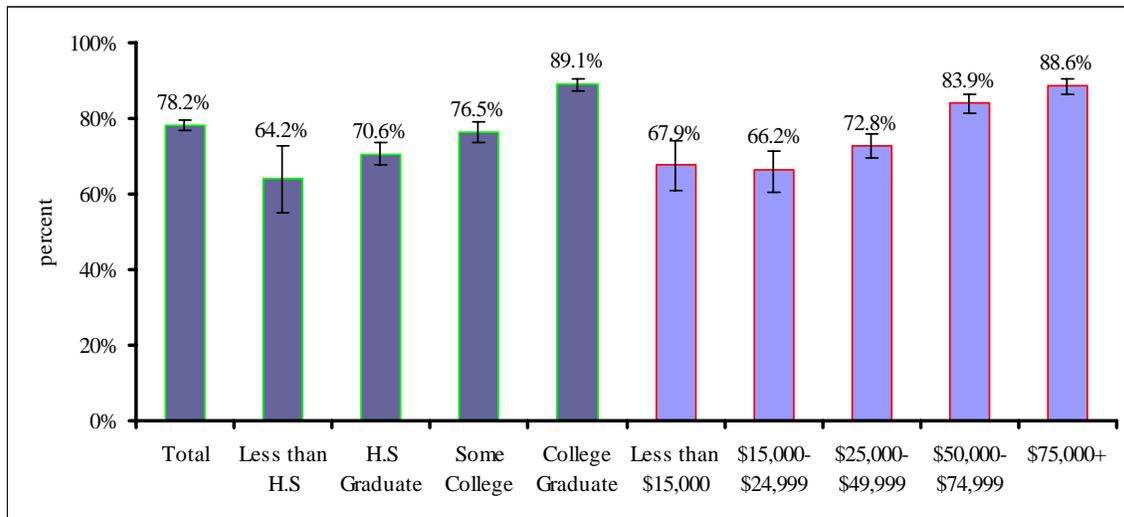


Source: Nebraska ATS/SCS (Error bar reflects confidence intervals)

Disparities in Smoke-free Rules in Vehicles – Education and Income

Figure 16 shows the percentages of Nebraskans who have smoke-free rules in their vehicles by education and income level. Nebraskans with college degrees (89.1%) were more likely to have smoke-free rules for their vehicles as compared to those with some college education (76.5%), high school education (70.6%) or less than high school education (64.2%). In terms of income, Nebraskans who earn more than \$50,000 were more likely to have smoke-free rules in their vehicle than those who earn less than \$50,000 (see figure 16).

**Figure 16. Smoke-free Rules in Vehicles by Education and Income Levels
2007**

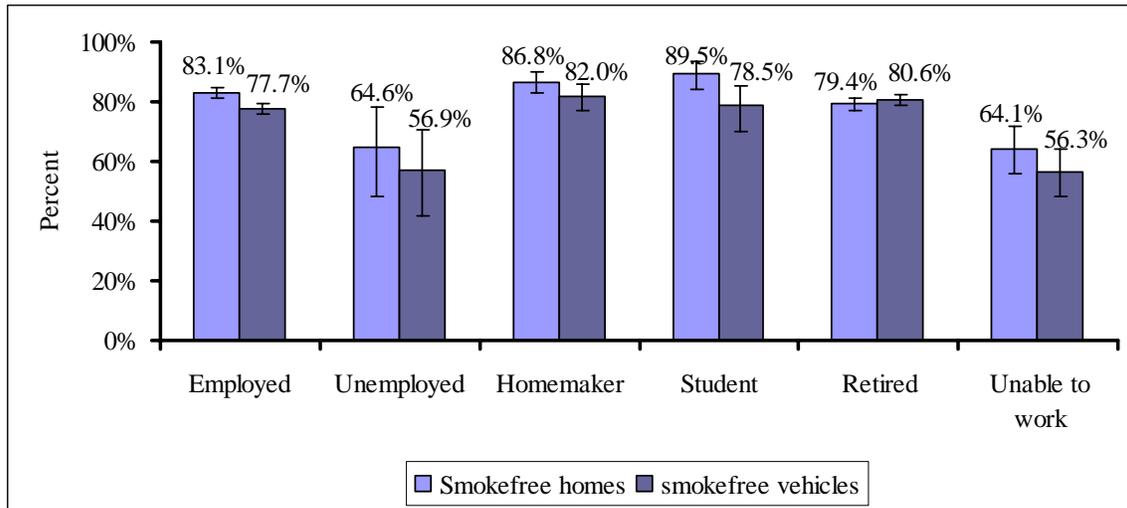


Source: Nebraska ATS/SCS (Error bar reflects confidence intervals)

Disparities in Smoke-free Rules in Homes and Vehicles – Employment Status

Figure 17 also shows that Nebraskans who were unemployed or were unable to work were significantly less likely to live in smoke-free homes or have smoke-free rules for their vehicles than the other categories.

**Figure 17. Smoke-free Policies in Homes and Vehicles by Employment Status
2007**



Source: Nebraska ATS/SCS (Error bar reflects confidence intervals)

Key Observations

Differences in protection against exposure to SHS may lead to tobacco-related disparities in morbidity and mortality later in life. Identifying and addressing these disparities can help in development intervention strategies that would help improve the quality of life among disparity populations that are likely to be negatively impacted by exposure to SHS in Nebraska.

Smoker and Non-Smoker Attitudes Towards Secondhand Smoke

The Nebraska 2007 ATS/SCS included a number of questions regarding general attitudes about secondhand smoke.

**Table 3. Attitudes Toward Secondhand Smoke
2007**

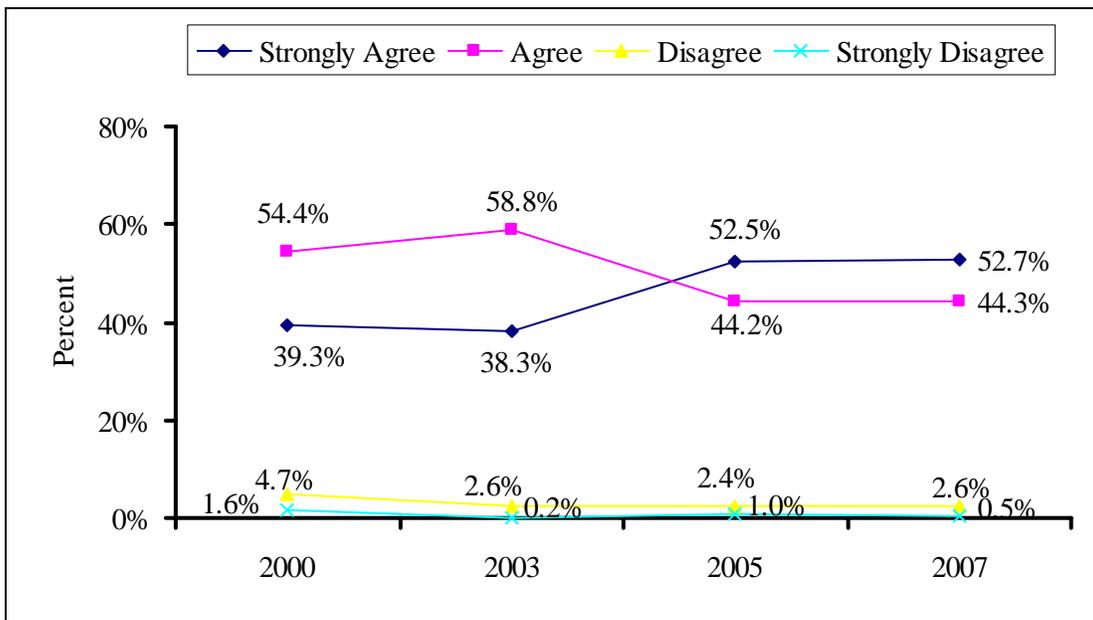
Health Consequences Associated with Exposure to Secondhand Smoke	Total	Smoker	Non-smoker
Bothered moderately or very much when exposed to secondhand smoke	69.7%	26.1%	79.5%
Agree or strongly agree that			
• Inhaling secondhand smoke is harmful to babies and children	97.3%	95.0%	97.8%
• Inhaling secondhand smoke is harmful to adults and children	96.8%	93.5%	97.7%
Breathing smoke from other people's cigarettes ...			
• Is very harmful	94.7%	86.9%	96.4%
• Causes lung cancer in adults	93.2%	82.6%	95.5%
• Causes heart disease	88.8%	77.5%	91.4%
• Causes respiratory problems in children	97.1%	92.3%	98.2%
• Causes sudden infant death syndrome	72.0%	57.7%	75.6%

Source: Nebraska ATS/SCS

Belief that Inhaling Smoke from a Parent's Cigarette is Harmful to Infants and Children

The Social Climate Survey (2000) and the Adult Tobacco Survey/Social Climate Survey (2003, 2005 and 2007) asked Nebraskans the extent to which they agreed that inhaling smoke from a parent's cigarette harms the health of infants and children. In 2007, nearly all Nebraskans (97%) agreed that inhaling smoke from a parent's cigarette harms the health of infants and children.

Figure 18. Percent of Nebraskans Reporting that Inhaling Smoke from a Parent's Cigarette is Harmful to Infants and Children 2000 - 2007



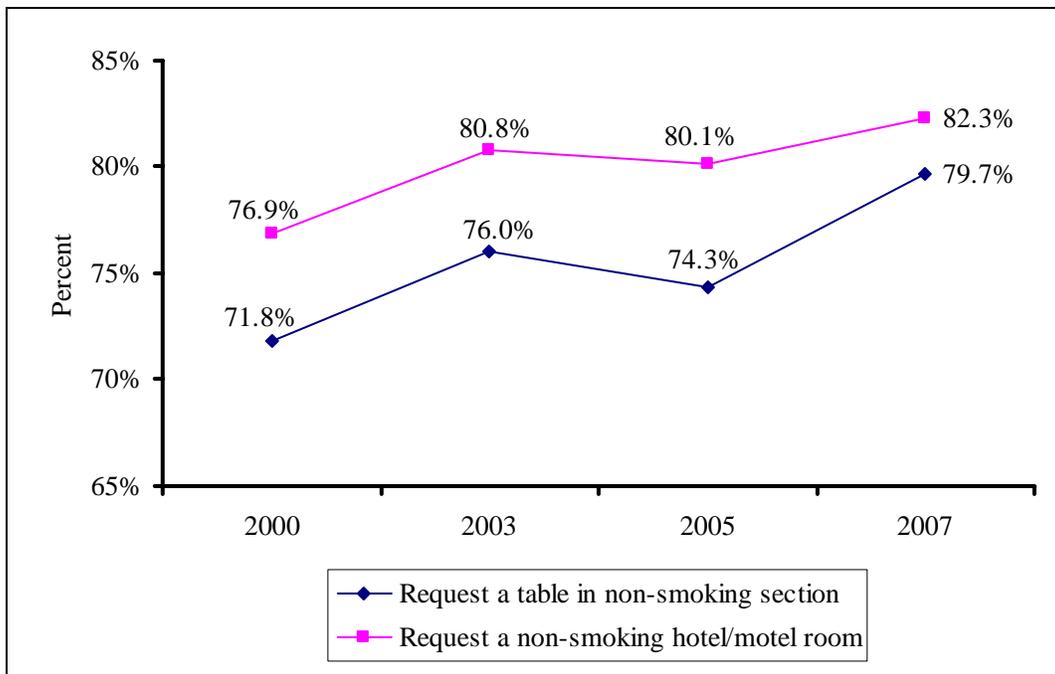
Source: Nebraska ATS/SCS

Preference for Smoke-Free Restaurants and Hotel/Motel Rooms

The 2000 Social Climate Survey and 2003, 2005 and 2007 Adult Tobacco Survey/Social Climate Survey data show that increasingly Nebraskans have preferred dining in the non-smoking sections of restaurants. Almost four in every five Nebraskans (79.7%) requested a non-smoking table in 2007, compared to 74.3 percent in 2005, 76.0percent in 2003 and 71.8 percent in 2000.

Nebraskans also increasingly request non-smoking rooms at hotels/motels. In 2000, about a quarter of Nebraskans (76.9%) requested a non-smoking room. The proportion increased from 76.9% in 2000 to 82.3 percent in 2007.

Figure 19. Percent of Nebraskans Who Preferred Eating in Non-Smoking Sections and Staying in Smoke-Free Hotel/Motel Rooms 2000 – 2007

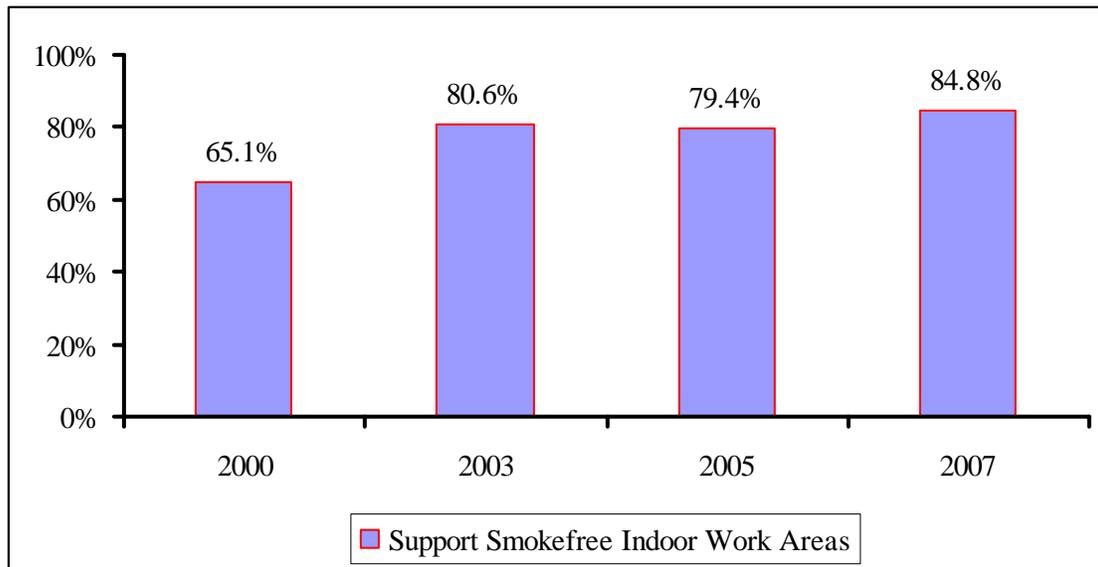


Source: Nebraska SCS, Nebraska ATS/SCS

Support for Smoking Restrictions in Work Areas

The 2000 Social Climate Survey and 2003, 2005 and 2007 Adult Tobacco Survey/Social Climate Survey included questions regarding support for restrictions on smoking in public places. Respondents were asked if smoking should be allowed in all areas, some areas, or not at all in indoor work areas. Between 2000 (65.1%) and 2003 (80.6%), there was increased support among Nebraskans for not allowing smoking in indoor work areas. In 2005, support for smoke-free indoor work areas (79.4%) remained almost the same as in 2003 and went up to 84.8 percent in 2007.

Figure 20. Percent of Employed Nebraskans Who Think Smoking Should Not Be Allowed in Indoor Work Areas 2000 - 2007



Source: Nebraska SCS, Nebraska ATS/SCS

Estimates of Smoking-Related Costs in Nebraska

The U.S. Centers for Disease Control and Prevention (CDC) uses the Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC) statistical software application to estimate the financial and health impacts of smoking to states and the nation. SAMMEC uses current information on cigarette smoking prevalence and scientific data for adults 35 years and older to calculate years of potential life lost, direct medical expenditures and lost productivity costs.

Preventable Deaths and Diseases Related to Smoking

According to SAMMEC estimates, 2,218 Nebraskans lost their lives because of cigarette smoking in 2006. This section details the specific health impacts that smoking has on Nebraska.

Table 4. Percent of Smoking-Attributable Deaths by Type of Disease and Gender – 2006

	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Malignant Neoplasms	628	45.84%	306	36.04%	934	42.10%
Cardiovascular Disease	363	26.50%	217	25.56%	580	26.14%
Respiratory Disease	376	27.45%	324	38.16%	700	31.54%
Infant mortality	3	0.22%	2	0.24%	5	0.22%
Total	1,370	100%	849	100%	2,219	100%

Source: Nebraska DHHS, Vital Statistics

Smoking-related deaths fall into three broadly defined categories: malignant neoplasms (cancers), cardiovascular disease (CVD) and respiratory disease (Table 4). A larger proportion of Nebraskans died from tobacco-related cancer (42.1%) than from tobacco-related CVD (26.1%) and respiratory diseases (31.5%). Data also shows that men (45.8%) experienced a higher proportion of tobacco-related cancer deaths than

women (36.0%), a higher proportion of tobacco related CVD deaths (26.5%) than women (25.6%). However, women (38.2%) were more likely to die from tobacco-related respiratory diseases than men (27.5%). Infant tobacco-related deaths include premature birth, respiratory distress syndrome, newborn respiratory condition and sudden infant death syndrome.

Tobacco-related cancers include cancers of the lip; oral cavity; pharynx, esophagus; pancreas; trachea and lungs; kidneys and renal and bladder (Table 5). The vast majority of tobacco-related cancer deaths involved cancers of the trachea and lungs (76.4%).

**Table 5. Smoking-Attributable Cancer Deaths in Nebraska
– 2006**

	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Lip, Oral, Pharynx	16	2.5%	8	2.6%	24	2.6%
Esophagus	46	7.3%	11	3.6%	57	6.1%
Stomach	7	1.1%	3	1.0%	10	1.0%
Pancreas	24	3.8%	21	6.8%	45	4.7%
Larynx	18	2.8%	3	1.0%	21	2.2%
Lung and Trachea	465	74.0%	249	81.0%	714	76.4%
Cervix	0	0.0%	2	0.6%	2	0.2%
Kidney/Renal	20	3.1%	1	0.3%	21	2.2%
Bladder	25	4.0%	8	2.6%	33	3.5%
Leukemia	7	1.1%	2	0.6%	9	1.0%
Total	628	100.0%	308	100.0%	936	100.0%

Source: Nebraska DHHS, Vital Statistics

Cardiovascular diseases accounted for 26.1 percent of smoking-related deaths in Nebraska in 2006 (Table 6). Men (50.8%) exhibited higher rates of mortality attributed to ischemic heart disease than women (43.6%), while women (28.4%) exhibited a slightly higher rate of mortality attributed to other heart diseases than men (26.6%) (Table 6).

**Table 6. Smoking-Attributable Cardiovascular Deaths in Nebraska
– 2006**

	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Ischemic Heart	185	50.8%	95	43.6%	280	48.1%
Other Heart	97	26.6%	62	28.4%	159	27.3%
Stroke	45	12.4%	38	17.4%	83	14.3%
Atherosclerosis	6	1.6%	3	1.4%	9	1.5%
Aortic Aneurysm	29	8.0%	15	6.9%	44	7.6%
Other Arterial	2	0.5%	5	2.3%	7	1.2%
Total	364	100.0%	218	100.0%	582	100.0%

Source: Nebraska DHHS, Vital Statistics

Respiratory diseases caused approximately 31.6 percent of Nebraska’s smoking-related deaths in 2006 (Table 7). Chronic Airway Obstruction accounted for over three quarters (84.0 %) of the smoking-related respiratory disease deaths (Table 7). Smoking-related Chronic Airways Obstruction deaths were high for both men (83.3%) and women (84.9%). Pneumonia/influenza accounted for less than ten percent (7.4 %) of tobacco related respiratory deaths while Bronchitis/Emphysema accounted for about nine percent.

**Table7. Smoking-Attributable Respiratory Deaths in Nebraska
– 2006**

	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Pneumonia/Influenza	31	8.2%	21	6.5%	52	7.4%
Bronchitis/Emphysema	32	8.5%	28	8.6%	60	8.6%
Chronic Airway Obstruct	314	83.3%	275	84.9%	589	84.0%
Total	377	100.0%	324	100.0%	701	100.0%

Source: Nebraska DHHS, Vital Statistics

Smoking-Attributable Lost Productivity Costs

Smoking-attributable lost productivity costs provide an estimation of the value of lost work time resulting from premature deaths. Lost productivity due to smoking-related mortality is defined as the present value of foregone future earnings from paid labor and the estimated earnings value from foregone unpaid household labor. CDC's SAMMEC program calculates an average annual smoking-related lost productivity cost based on adults aged 35 years and older. SAMMEC estimates for 2004 show total lost productivity costs by gender and for the whole state attributable to the three main tobacco related causes of death.

Table 8 Nebraska Smoking-Attributable Productivity Losses (in thousands) ^{i, ii}
2004

Disease Category	Male	Female	Total
Malignant Neoplasms	\$167,406	\$79,556	\$246,962
Cardiovascular Diseases	\$123,033	\$41,932	\$164,965
Respiratory Diseases	\$51,780	\$42,279	\$94,059
Total	\$342,219	\$163,767	\$505,986

ⁱ Among adults aged 35 years and older

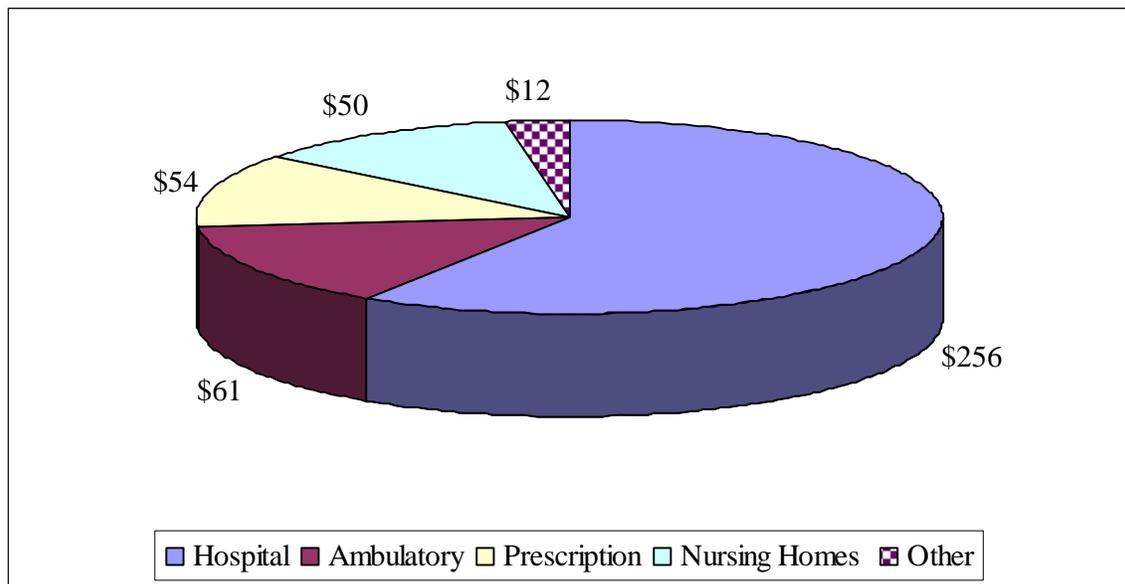
ⁱⁱ Does not include burn or secondhand smoke deaths

Source: CDC, Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC)

Smoking-Related Health Care Expenditures

CDC's SAMMEC data estimates smoking-related health care expenditures within five general categories: ambulatory care, hospital care, prescription drugs, nursing home care and other care (home health, nonprescription drugs, etc.). The estimates are for the 18 and older population. According to SAMMEC calculations, Nebraska's smoking-related health care expenditures were approximately \$433 million annually. The greatest portions of smoking-related expenditures are for hospital care, ambulatory care and prescriptions (Figure 21).

**Figure 21. Smoking-Attributable Expenditures (in millions)
2006**



Source: CDC, SAMMEC

Smoking Related Fires and Annual Costs in Nebraska

Figure 22 and 23 indicates the annual cost and total number of smoking-related fires in Nebraska respectively. The number of fires declined from a high of 87 in 2000 to 41 in 2003 but went slightly up to 54 fires in 2005.

Cigarette-related fires account for substantial economic losses in Nebraska every year. According to data from the State Fire Marshal's Office, there was a steady decline in the annual losses from smoking-related fires from \$1,266,670 in 2000 to \$218,925 in 2004. However, the annual losses went up in 2005 to \$601,470.

Figure 22. Annual Cost of Smoking-Related Fires in Nebraska 2000 – 2005

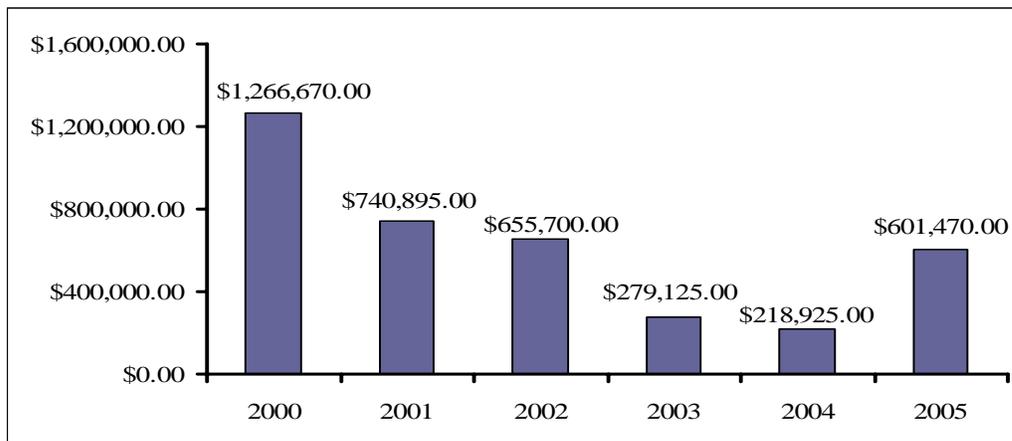
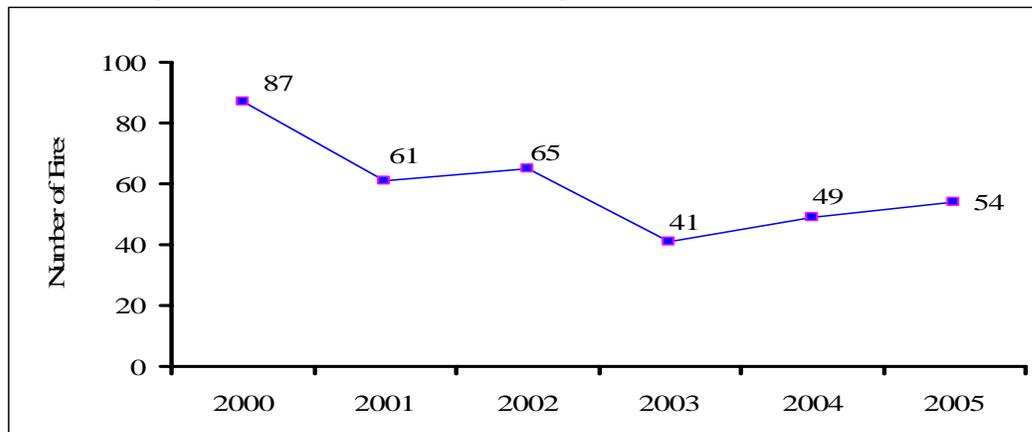


Figure 23. Annual Number of Smoking-Related Fires in Nebraska 2000 – 2005

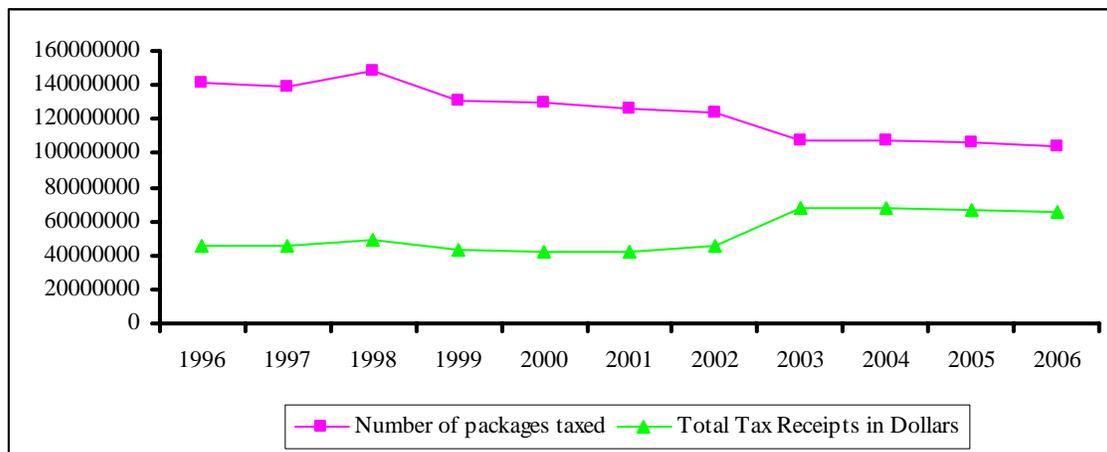


Nebraska Cigarette Excise Tax

The number of cigarette packs sold and taxed in Nebraska has steadily declined from 138 million packs in 1997 to 104 million packs in 2006. During the same period the tax receipts have increased from \$46 million in 1997 to \$65 million in 2006.

The most recent cigarette tax increase in Nebraska was in 2002 when the Nebraska State Legislature increased the tax from 34 cents to 64 cents on packs containing 20 or fewer cigarettes and from 42.5 cents to 80 cents on packs containing 25 cigarettes.

Figure 24. Nebraska Cigarette Tax Receipts and Number of Packs Taxed 1997 – 2006



Source: Nebraska Department of Revenue Annual Report

Distribution of Cigarette Tax Revenue

- 49¢** Deposited in the General Fund. From July 1, 1994, through June 30, 2009, this amount is reduced by \$3 million per fiscal year which is deposited in the Municipal Infrastructure Redevelopment Fund. From July 1, 2003 through June 30, 2009, the amount is reduced by \$250,000 per fiscal year which is deposited in the Municipal Infrastructure Redevelopment Fund. Beginning October 1, 2004, the amount deposited in the General Fund increased from 21 cents to 49 cents. The additional 28 cents was deposited into the Cash Reserve Fund before this date.
- 1¢** Deposited in the Nebraska Outdoor Recreation Cash Fund
- 3¢** Deposited in the Department of Health and Human Services Finance & Support Cash Fund
- 7¢** Deposited to the Building Renewal Allocation Fund
- 2¢** This portion is now a fiscal year payment of \$1,000,000 to the City of Primary Class Development Fund (Lincoln) and \$1,500,000 to the City of Metropolitan Class Development Fund (Omaha). This is effective until June 30, 2016.
- 2¢** Deposited into the Information Technology Infrastructure Fund

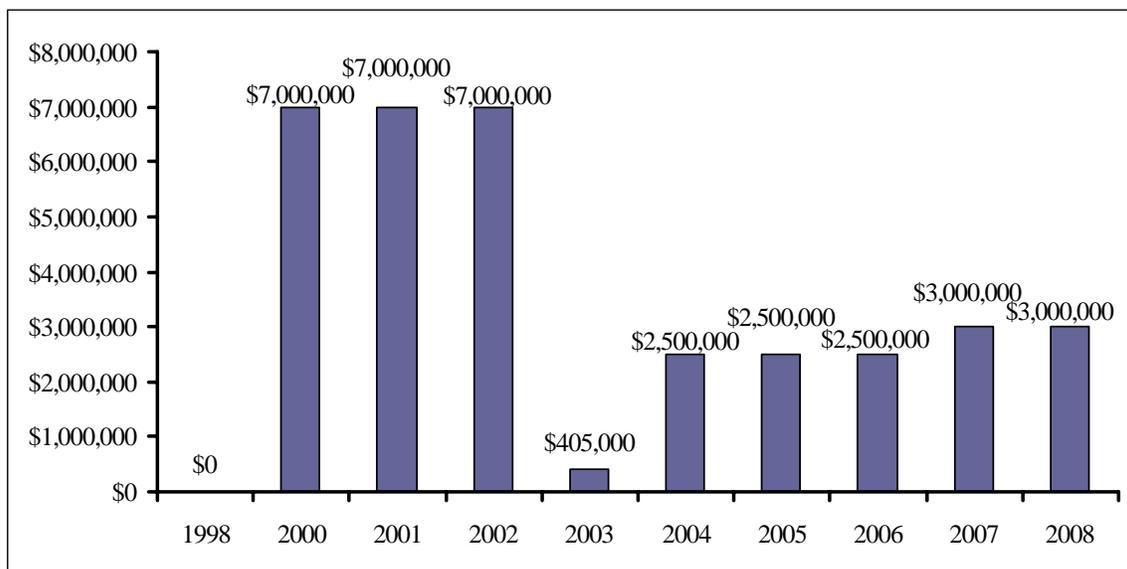
Source: Nebraska Department of Revenue Annual Report

State Funding for Comprehensive Tobacco Control and Prevention

In 2000, the Nebraska Unicameral passed Legislative Bill (LB) 1436 marking a milestone in tobacco control efforts in the state. The bill allocated \$21 million over three years to the Nebraska Department of Health and Human Services' Tobacco Free Nebraska program from the multi-state Tobacco Master Settlement Agreement (MSA). This marked the first time the unicameral allocated state funds for comprehensive tobacco control efforts. In 2004, the Nebraska Legislature passed LB 1089 which allocated \$2.5 million a year of MSA payments to comprehensive tobacco prevention and control programs in the state.

The CDC's *Best Practices for Comprehensive Tobacco Control Programs* published in 2007 recommends that Nebraska's annual investment towards comprehensive tobacco prevention and control is \$21.5 million. In 2007 state funding increased to \$3.0 million per year which is 14 percent of the CDC recommended funding level and ranks Nebraska 37th among all states.

**Figure 25. State Funding for the Tobacco Free Nebraska Program
1998 - 2008**

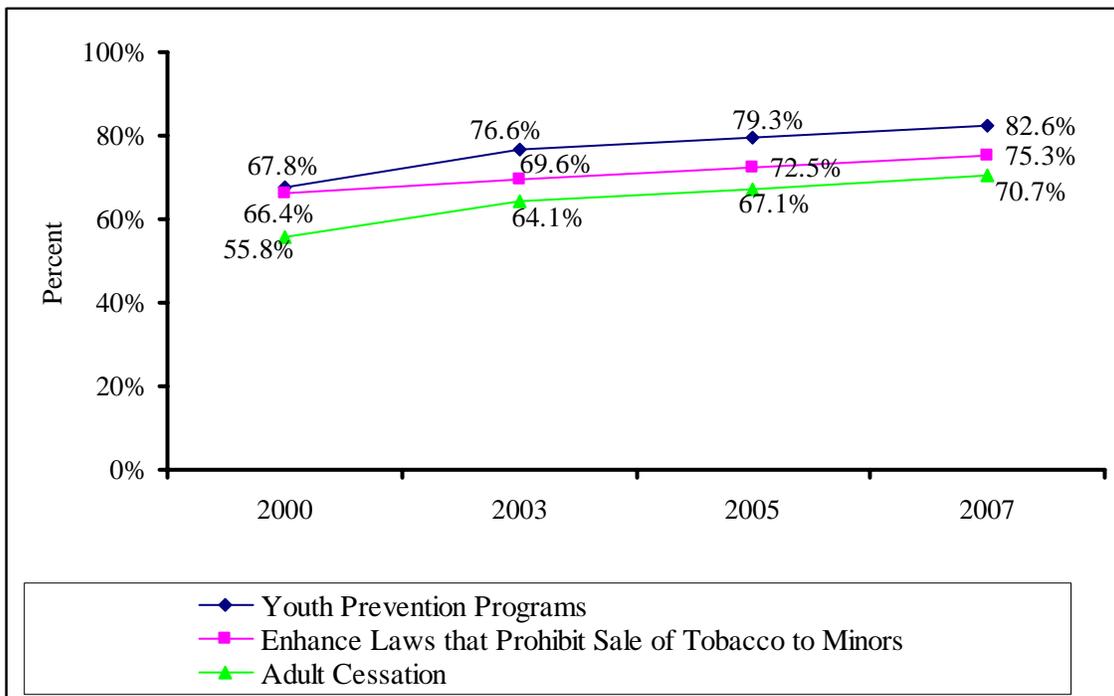


Support for Increasing Tobacco Taxes to Fund Tobacco Control Programs

The 2000 Social Climate Survey and 2003, 2005 and 2007 Adult Tobacco Survey/Social Climate Survey asked Nebraskans if state tobacco taxes should be increased to fund tobacco control and prevention programs. This includes education programs to prevent young people from starting to use tobacco, enforcing laws that prevent the sale of tobacco products to minors and helping adults quit tobacco.

There is an increasing trend among Nebraskans to support raising tobacco taxes to fund youth prevention programs from 67.8 percent in 2000 to 82.6 percent in 2007. There was a similar increase in support for raising tobacco taxes to fund enforcement to restrict sales to minors from 66.4 percent in 2000 to 75.3 percent in 2007 and to fund adult cessation programs from 55.8 percent in 2000 to 70.7 percent in 2007.

Figure 26. Percentage of Nebraskans Who Support Increasing State Tobacco Taxes to Fund Tobacco Control Programs 2000 - 2007

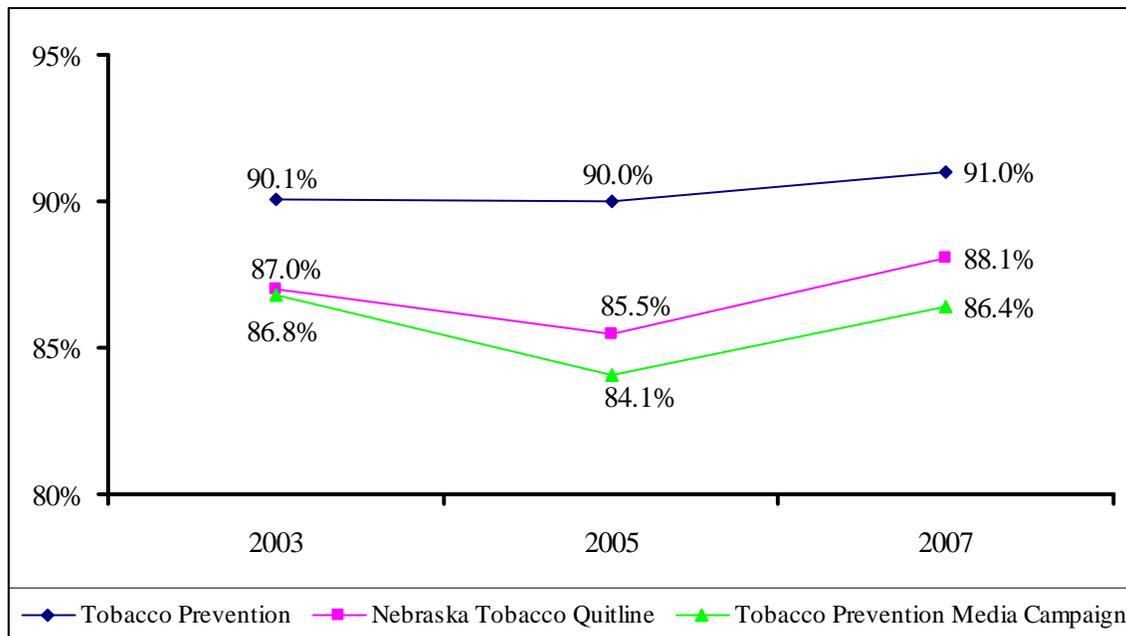


Source: Nebraska SCS, Nebraska ATS/SCS

Support for Nebraska's Tobacco Settlement Funds for Tobacco Control

The Adult Tobacco Survey/Social Climate Survey asked Nebraskans if a portion of Nebraska's share of the tobacco master settlement funds should be used for tobacco prevention and cessation programs. A majority of Nebraskans favored using settlement funds for tobacco prevention programs, the Nebraska Tobacco Quitline and a tobacco prevention media campaign. Although, there were slight declines in all areas from 2003 to 2005, support was up again in 2007.

Figure 27. Percent of Nebraskans Who Support Using a Portion of Nebraska's Tobacco Settlements Funds for Tobacco Control Programs 2003 - 2007



Source: Nebraska ATS/SCS

References

- Campaign for Tobacco-Free Kids. *FY2006 Rankings of State Funding for Tobacco Prevention*. Accessed on November 13, 2008 from <http://tobaccofreekids.org/reports/settlements/2008/staterankings.pdf>
- Centers for Disease Control and Prevention. *Targeting Tobacco Use: The Nation's Leading Cause of Preventable Death: At A Glance 2008*. Accessed on November 14, 2008 from <http://www.cdc.gov/NCCDPHP/publications/aag/osh.htm>
- National Cancer Institute. *Smokeless Tobacco: Health and Other Effects. Assessed on December 2008* from http://dccps.nci.nih.gov/TCRB/less_effects.html
- Nebraska Department of Health & Human Services, Office of Family Health. *Nebraska Pregnancy Risk Assessment Monitoring System (PRAMS) 2004 - 2006*
- Nebraska Department of Health & Human Services (2000). *Nebraska Health 2010 Goals and Objectives*.
- Nebraska Department of Revenue (2006). Annual Report. Accessed on January 24, 2005 from http://www.revenue.ne.gov/ann_rept/06an_rep/annrep06.htm
- Nebraska State Fire Marshal's Office. *Fire Reporting System, 2005*. Accessed from <http://www.sfm.state.ne.us/statistics/fire/fire.html>
- U.S. Department of Health and Human Services (2006). *The Health Consequences of Involuntary Exposure to Tobacco Smoke. A Report of the Surgeon General*. Atlanta, Georgia, United States, Public Health Service, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Centers for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Data Sources Used to Compile this Report

Behavioral Risk Factor Surveillance System (BRFSS) – The Behavioral Risk Factor Surveillance System is a telephone survey that uses CDC developed-questionnaires to monitor health behaviors across the nation. The core BRFSS survey is conducted in every state and each state can choose to conduct additional, supplemental BRFSS questionnaires that measure specific health behaviors.

Minority Oversample BRFSS – The Minority BRFSS was designed to increase the number of racial and ethnic minority respondents in the survey. Nebraska has conducted a separate “minority oversample” survey each year since 2001. Racial and ethnic minority respondents are those who reported their race as African American, Asian American, Native American, Other, or reported more than one race. Persons who reported that they were of Hispanic Origin were also considered ethnic minority respondents. With the exception of a few questions not asked in the minority survey, the questionnaires used were identical to the main survey.

Nebraska Adult Tobacco Survey / Social Climate Survey – The 2000 Nebraska Social Climate Survey (SCS), and 2003, 2005 and 2007 Adult Tobacco Survey/Social Climate Survey (ATS/SCS) are representative telephone interview surveys of Nebraskans' attitudes and behaviors regarding tobacco. The 2000 SCS included a sample of 2,476 adult Nebraskans and the 2003 (ATS/SCS) included a sample of 7,019 adult Nebraskans. The 2005 (ATS/SCS) included a sample of 8,815 adult Nebraskans. The 2000 (ATS/SCS) had a total sample of 8,825 adult Nebraskans.

Nebraska's Annual SYNAR Report – The Nebraska State Patrol conducts random, unannounced compliance checks of businesses to monitor sales of tobacco products to minors. The State Patrol recruits underage persons to attempt to purchase tobacco products in stores throughout the state. Results of these purchase attempts are used to calculate Nebraska's compliance rate for the Substance Abuse Prevention and Treatment Block Grant.

Nebraska School Administrator Survey (SAS) – The Nebraska School Administrator Survey collects data regarding Nebraska school policies towards tobacco use. The 2006 SAS included responses from 236 of the 449 public middle and high schools in the state.

Pregnancy Risk Assessment Monitoring System (PRAMS) – The Pregnancy Risk Assessment Monitoring System is a joint project between the Nebraska Department of Health & Human Services' Office of Family Health and the Centers for Disease Control and Prevention. PRAMS is an ongoing study that provides data from a representative sample of Nebraska women before, during and shortly after pregnancy.

Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC) – The SAMMEC application is used to estimate the health and financial impact of cigarette smoking for the nation and states. SAMMEC uses existing smoking prevalence, health, and economic data to calculate smoking-attributable mortality, years of potential life lost, direct medical expenditures and lost productivity costs associated with smoking.

Youth Risk Behavior Survey (YRBS) – The YRBS is used to monitor health behaviors that contribute to the leading causes of death, disability and social problems among youth in the United States. The YRBS includes national, state, and local school-based surveys of representative samples of 9th through 12th grade students. A degree of caution must be used when interpreting Nebraska YRBS data for years when the data was not weighted. Due to the low student response rate to YRBS in these years, the results are representative of only those students who completed the questionnaires and not of students statewide.



Division of Public Health
Preventive & Community Health
Tobacco Free Nebraska Program
301 Centennial Mall South
P.O. Box 95026
Lincoln, NE 68509-5026
(402) 471-2101
tfn@dhhs.ne.gov
<http://www.dhhs.ne.gov/tfn/>

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